

KAESOP

Ethernet board for K and i-Series amplifiers with two AES3 channels over CAT5 cable

PRODUCT DESCRIPTION

KAESOP plug-in board provides Powersoft K-Series amplifiers with a proprietary AESOP (AES Ethernet Simple Open Protocol) network dedicated to live applications where high quality audio, easy system configuration and reliability must be guaranteed.

Control data travel through an auto-sense 100 Mbit Ethernet network, while audio is carried by AES-3 protocol in the two unused pairs of the same CAT 5e Ethernet cable.

AES-3 is a mature standard, whose low-latency, reliability and audio quality can assure wide interconnection to most professional audio devices.

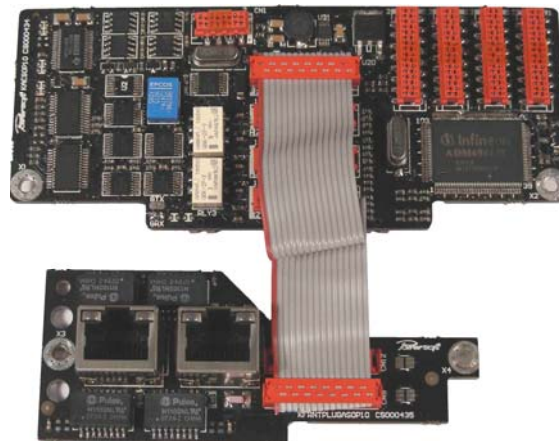
RJ45 dual port design allows daisy chain and redundant ring topologies.

Fault bypass technology permits to overcome any faulty device in the network, assuring rock solid connectivity without any audio or control signal loss.

Redundant ring topology provides a second level of security assuring bullet-proof quality to the AESOP network.

ETHERNET REMOTE CONTROL AND MONITORING

- Efficient data routing for large-sized systems: thousands of devices can be individually addressed.
- 2 main RJ45 ports, 100 Mbit, auto-sense, fault tolerant.
- 2 aux RJ45 ports, 100 Mbit, auto-sense.
- 32 bit ARM processor.
- Automatic network configuration.
- Network upgradable firmware.
- Each amplifier can be remotely controlled and monitored with proprietary Powersoft Audio Suite software optimized for tablet PC use.
- Large system setup and servicing is made easy.
- Up to 100 m CAT 5e FTP cable from amplifier to amplifier, a fault bypass proper design requests considering half of this maximum distance for every device added in the network.
- Full four years warranty



AUDIO DATA OVER CAT 5E CABLE

- AES3 audio protocol for universal interconnection with pro-audio equipment.
- 2 AES3 inputs from main RJ45 ports.
- 1 AES3 input from rear XLR plug: each amplifier can repeat rear XLR AES3 signal to main RJ45 ports, acting as a source for the AESOP network.
- Supported sampling rates: 32, 44.1, 48, 96, 192 kHz.
- Direct AES3 audio digital input to amplifier.
- Direct digital connection to optional KDSP board.
- 24bit/192KHz stereo DAC analog outputs.
- 120 dB (A-weighted) Dynamic Range, < 0.002% THD.
- Low-latency network: 3 samples delay (62us @48KHz, 31us @96KHz).
- Negligible amplifier to amplifier propagation delay.

REDUNDANT BULLET-PROOF ETHERNET NETWORK

- Fault tolerant: audio and control signals will run through any faulty device.
- Redundant ring topology on both audio and control.
- Fast failure recovery time: <0.05 s on audio signal, <0.5 s on control data.